EXTENSION TO VARIANCE FOR COMBINED SEWER OVERFLOW DISCHARGES LOWER CHARLES RIVER BASIN FACT SHEET

This document is intended to provide a summary of the activities that have taken place since the Massachusetts Department of Environmental Protection's ("DEP") issuance of the Combined Sewer Overflow ("CSO") Variance for the Lower Charles River Basin on October 1, 1998, and to provide a frame of reference for DEP's decision to extend the Variance for a period not to exceed three years, to October 1, 2013.

I. Background on CSO Control and Variance

Boston Harbor Case

As part of the Boston Harbor Case (D. Mass. C.A. No. 85-0489-RGS), the Massachusetts Water Resource Authority ("MWRA") is required to undertake corrective actions in its approved Long Term CSO Control Plan ("LTCP") to reduce or eliminate CSO discharges to the Charles River. The LTCP includes 35 wastewater system improvement projects that will reduce or eliminate CSO discharges at 84 outfalls in the metropolitan Boston area at an updated MWRA cost of \$884.1 million. The LTCP for the Charles River has an estimated cost of \$96 million.

MWRA has completed 24 of the 35 projects in the LTCP. Eight of the projects are currently in construction, including the Brookline and Bulfinch Triangle sewer separation projects that benefit the Charles River. Two other projects are in design, and MWRA plans to commence design of the last of the 35 projects in April 2012. During 2010, MWRA expects that it will complete the East Boston Branch Sewer Relief project (Interceptor Relief for BOS003-014), that BWSC will complete the Bulfinch Triangle sewer separation project, and that the City of Cambridge will complete the Alewife Brook related project for interceptor connection relief and floatables control at CAM002 and CAM401B, and floatables control at CAM001. Completion of these three projects in 2010 will bring the number of completed projects to 27 of the 35 projects in the LTCP.

MWRA produced its Final CSO Facilities Plan and Environmental Impact Report ("FEIR") in July 1997. The FEIR was the result of several years of CSO planning and underwent extensive public, regulatory, and MEPA review as part of the process. Early in the planning process, MWRA characterized the baseline conditions throughout the regional planning area, including the Charles River Basin, through an extensive flow metering, water quality sampling and collection system modeling and water quality modeling program. In accordance with national and Massachusetts CSO control policies, the FEIR evaluated the costs and benefits of a range of CSO alternatives in the Charles River Basin to address these discharges.

DEP and the United States Environmental Protection Agency ("EPA") reviewed the information in the FEIR and in early 1998 concurred that the recommended plan for the Charles River Basin should move forward without delay. At that time, DEP and EPA decided to defer a final determination on the water quality standard and associated long-term level of CSO control

in the Charles River Basin until additional information on CSO and non-CSO pollutant loads could be developed. Accordingly, DEP, with the support of EPA, issued the Variance for CSO discharges to the Charles River on October 1, 1998.

DEP extended the variance several times, in part to accommodate the collection and analysis of additional water quality data by the Charles River Watershed Association ("CRWA"), MWRA and others, the evaluation of the effectiveness of stormwater pollution controls by the United States Geological Survey ("USGS"), the implementation of stormwater pollution control measures by municipalities along the Charles River, and the further evaluation of additional CSO controls. These analyses led MWRA to recommend additional controls and expand its LTCP for the Lower Charles River Basin in 2005.

In March 2006, MWRA reached agreement with EPA, DEP and the United States Department of Justice ("DOJ") on the revised plan and a new schedule. The agreement was filed with the Federal District Court as part of a joint motion to amend the court schedule in the Boston Harbor Case (D. Mass. C.A. No. 85-0489). At that time, DEP and EPA determined that MWRA's LTCP satisfied the requirements for a variance from water quality standards for CSO discharges to the Lower Charles River Basin through 2020. As part of this determination, DEP and EPA agreed that DEP would issue and EPA would approve five consecutive extensions of no more than a three-year duration each through 2020, when the LTCP would be fully implemented and verification of attainment of the long-term levels of CSO control would be made. The variance extensions would be consistent with and limited to the requirements in MWRA's LTCP.

In April 2006, the Court allowed the joint motion and issued an Order with a new schedule. Under the Order, MWRA has until the year 2020 to complete the remaining CSO work and subsequent monitoring to verify that the long-term CSO control goals are achieved. In addition, the United States and MWRA agreed to withdraw the February 27, 1987 Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflows and replace it with a Second Stipulation that requires MWRA to implement the CSO requirements set forth in the court schedule and to meet the levels of control described in MWRA's LTCP. In July 2006, the Court accepted revisions to Schedule Six incorporating a new Schedule Seven. The revisions include modified or additional milestones for projects in the Alewife Brook, Charles River and East Boston CSO plans.

CSO Variance

In October 1998, the DEP issued, and the EPA approved, a three-year variance to water quality standards for CSO discharges to the Lower Charles River Basin. DEP issued the variance in lieu of making a long-term revision to water quality standards for this receiving water in accordance with MWRA's LTCP.

With the variance, DEP approved MWRA's LTCP for the Lower Charles River Basin and required MWRA to implement the LTCP, evaluate the potential for infiltration/inflow (I/I) removal to increase CSO control and benefits, and conduct additional water quality investigations to assess pollutant loadings to these waters. With the new information collected during the variance period, MWRA was required to report on whether certain CSO control

measures beyond the LTCP recommendations might be cost effective, most notably alternatives for providing additional storage at MWRA's Cottage Farm CSO treatment facility.

An early condition of the Charles River CSO Variance issued to MWRA required preparation and submission of the Cottage Farm CSO Facility Assessment Report (the "Cottage Farm report" or "report"). The report was submitted in January 2004 and underwent a lengthy public review and comment period, extending to May 2004. The Cottage Farm report verified that the CSO facility provides significant treatment in compliance with the NPDES permit, and that additional storage at the facility would have great cost and adverse impact to the recreational facilities at Magazine Park, with negligible water quality benefit. In the Cottage Farm report, MWRA instead recommended specific system optimization measures to maximize the conveyance of wet weather flows to the Deer Island Wastewater Treatment Plant, minimize overflows into the Cottage Farm facility, and maximize the benefit of the facility's existing storage basins. The report also demonstrated the value of sewer separation work (i.e. removal of stormwater inflow from the combined sewer system) by the City of Cambridge and the Town of Brookline in reducing CSO discharges to the Charles River.

On October 1, 2004, after reviewing the Cottage Farm report and related public comments, DEP issued an additional three-year extension to the Charles River variance, to October 1, 2007. Conditions in the current variance that expires on September 30, 2010 require MWRA, the City of Cambridge and the Boston Water and Sewer Commission ("BWSC") to implement all elements of the recommended CSO control plan for the Charles River, including the additional controls recommended by MWRA in the Cottage Farm report. The variance also requires MWRA, Cambridge and BWSC to continue to implement the Nine Minimum Controls and requires MWRA to perform CSO discharge monitoring, provide public notice of CSO discharges, and to conduct Charles River water quality monitoring. In addition, the variances issued to MWRA, Cambridge and BWSC required these permittees to report on improvements to their sewer systems and storm drain systems that may affect sanitary sewer overflows ("SSOs") and CSOs to the Charles River; report on the operational performance of facilities related to the collection and transport of combined sewage flows; and evaluate the feasibility of additional infiltration/inflow (I/I) removal and stormwater controls to further reduce SSO and CSO discharges.

DEP's subsequent extension of the variance in 2007 was intended to provide for the implementation of the LTCP and the continued monitoring of CSO controls. Water quality data collection and water quality characterization by the CRWA, MWRA and others continues, and the implementation of MWRA's LTCP projects is scheduled to be completed by December 2015, with verification of control by December 2020. The current variance extension expires September 30, 2010.

II. Level of CSO Control

Revised CSO Control Plan

In August 2005, MWRA recommended a revised region-wide LTCP that included a schedule for implementing the revised plan for Charles River. At that time, MWRA

recommended adding a set of optimization measures and targeted sewer separation projects to its plan to increase the level of CSO control at Cottage Farm and at other Charles River outfalls by improving hydraulic conditions and reducing stormwater inflow. The added projects included:

- Brookline Connection/Cottage Farm Overflow Chamber Interconnection and Gate Control
- Charles River Valley/South Charles Relief Sewer Gates Controls and Additional Interceptor Connections
- Bulfinch Triangle Sewer Separation
- Brookline Sewer Separation

These projects add approximately \$44 million to MWRA's cost for the Charles River CSO plan, for a total of \$96 million. The projects were incorporated into the revised LTCP approved by EPA and DEP in March 2006 and incorporated into Schedule Seven by the Federal District Court in the Boston Harbor Case (D. Mass. C.A. No. 85-0489) in April 2006. Together with projects in the original plan, they are predicted to reduce treated CSO discharges at the Cottage Farm facility to 2 activations and 6.3 million gallons in a typical year, compared to the 1997 goals of 7 activations and 23 million gallons. Most of the benefit comes from optimization improvements that increase in-system storage and direct more wet weather flow to MWRA's Ward St. Headworks, for transport to the Deer Island Treatment Plant and reduce overflows into the Cottage Farm facility. The targeted sewer separation projects will lower wet weather flows to the conveyance system, offsetting any hydraulic impacts of increasing in-system storage and directing more flow to the Headworks.

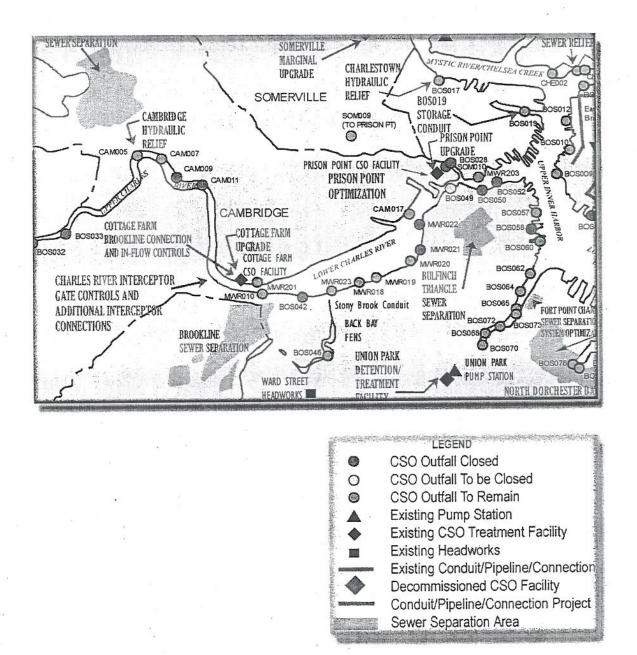


Figure 1. Charles River Basin CSO locations and projects.

MWRA, with the cooperation of BWSC, the City of Cambridge and the Town of Brookline, is actively pursuing implementation of the remaining projects on schedule, with the exception of the Charles River Valley/South Charles Relief Sewer Gates Controls and Additional Interceptor Connection project, which MWRA is seeking to delete from Schedule Seven. MWRA anticipates that BWSC will complete the Bulfinch Triangle sewer separation project in July 2010, three years ahead of schedule and that the Town of Brookline will complete the Brookline sewer separation project by July 2013, on schedule. MWRA and BWSC previously completed the Charles River projects that were in the original plan, including Cottage Farm Facility Upgrade (2000), Hydraulic Relief at CAM005 (2000), Floatables Controls and Outfall Closings at MWR018, 019, 020, 021 and 022 (2000) and Stony Brook Sewer Separation (2006).

MWRA also recently completed the Brookline Connection and Cottage Farm Overflow Chamber Interconnection and Gate Control project (2009).

Actual and Anticipated CSO Reductions in the Charles River Basin

MWRA has already reduced the typical year CSO discharge volume to the Charles River (Upper and Lower Basins) from 1.7 billion gallons in 1988 to 26.9 million gallons today, including CSO discharge to the Back Bay Fens at Outfall BOS046, with 86 percent of the current annual treated discharge at the Cottage Farm CSO facility (Figure 2). This includes a 23.14 million gallon reduction in the Cottage Farm CSO facility's typical year discharge volume that resulted from completion of the Brookline Connection/Cottage Farm Overflow Chamber Interconnection and Gate Control project last year. MWRA has spent \$69 million so far to implement the CSO control projects for the Charles River alone since the 1997 LTCP was issued. With completion of the remaining work, MWRA will reduce CSO discharge volumes to the Charles River to approximately 13 million gallons in a typical year, with approximately 50 percent of the remaining annual discharge treated at the Cottage Farm CSO facility.

Predicted Typical Year CSO Discharge Volumes 1988-2015

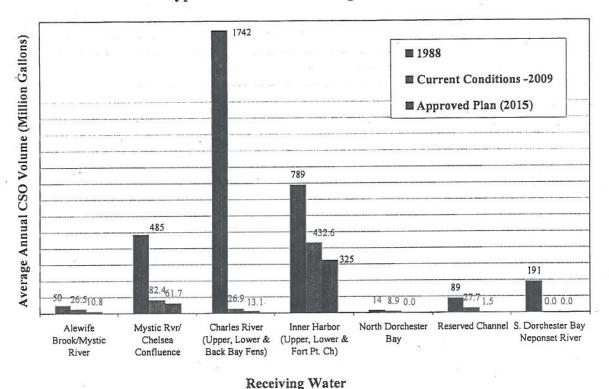


Figure 2. Predicted Typical Year CSO Discharge Volumes for 1988 through 2015.

The CSO abatement resulting from MWRA's LTCP is summarized in the following table:

| 0.000000 | Annual CSC | Discharge Fr (for | equency and V typical year rai | | Charles River | <i>5</i> 4 |
|----------|----------------------------|----------------------|-----------------------------------|----------------|------------------------------------|----------------|
| Outfall | Baseline Conditions (1988) | | Current Conditions ⁽¹⁾ | | Plan Implementation ⁽²⁾ | |
| | Activations | Volume (MG) | Activations | Volume (MG) | Activations | Volume (MG) |
| BOS032 | 4 | 3.17 | N/A | Eliminated | N/A | Eliminated |
| BOS033 | 7 | 0.26 | N/A | Eliminated | N/A | Eliminated |
| CAM005 | 6 | 9.17 | 3 | 1.38 | 3 | 0.84 |
| CAM007 | 1 | 0.81 | 2 | 0.25 | 1 | 0.03 |
| CAM009 | 19 | 0.19 | N/A | Closed | 2 | 0.01 |
| CAM011 | 1 | 0.07 | N/A | Closed | 0 | 0.0 |
| BOS028 | 4 | 0.02 | N/A | Eliminated | N/A | Eliminated |
| BOS042 | 0 | 0.00 | N/A | Eliminated | N/A | Eliminated |
| BOS049 | 1 | 0.01 | 0 | 0.00 | N/A | Eliminated |
| CAM017 | 6 | 4.72 | 1 | 0.50 | 1 | 0.45 |
| MWR010 | 16 | 0.08 | 0 | 0.00 | 0 | 0.0 |
| MWR018 | 2 | 3.18 | 0 | 0.00 | 0 | 0.0 |
| MWR019 | 2 | 1.32 | 0 | 0.00 | 0 | 0.0 |
| MWR020 | 2 | 0.64 | 0 | 0.00 | 0 | 0.0 |
| MWR021 | 2 | 0.5 | N/A | Eliminated | N/A | Eliminated |
| MWR022 | 2 | 0.43 | N/A | Eliminated | N/A | Eliminated |
| MWR201 | 18+ | 1,547 | 8 | 23.14 | 2 | 6.3 |
| MWR023 | 39 | 115 | 1 | 0.02 | 2 | 0.13 |
| SOM010 | 18 | 3.38 | N/A | Eliminated | N/A | Eliminated |
| TOTAL | | 1,690 MG | | 25.29 MG | | 7.76 MG |

⁽¹⁾ From MWRA modeling of 2009 system conditions. Includes the benefits of major improvements to Deer Island transport and treatment system and implementation of system optimization measures (SOPs) recommended by MWRA in 1993 and 1994, as well as completed LTCP projects.

⁽²⁾ Construction of the long-term CSO control plan for Boston Harbor and its tributaries is scheduled to be complete by December 2015, which will be followed by a period of post construction monitoring in accordance with Schedule Seven of the Boston Harbor Case.

Seven of the Boston Harbor Case.

(3) MWR201 is the effluent discharge for the Cottage Farm CSO Facility. Flows are screened, disinfected and dechlorinated prior to discharge.

With significant CSO control and related water quality improvement already achieved, and with additional projects moving forward to achieve higher benefits, MWRA is requesting an extension to its variance for CSO discharges to the Lower Charles River/Charles Basin to September 30, 2013.

Results of MWRA's Water Quality Monitoring in the Charles River

MWRA has been monitoring water quality continuously in the Charles River since 1989. Studies include measurements of sewage indicator bacteria, nutrients, and physical measures like dissolved oxygen, salinity and pH. MWRA has submitted reports annually during the timeframe of the variance. The reports (e.g. Coughlin K. 2009. Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2008. Boston: Massachusetts Water Resources Authority. Report 2009-09. 31 p.) are available at: http://www.mwra.state.ma.us/harbor/enquad/trlist.html.

There have been noticeable improvements in the level of *Enteroccocus* bacteria in the Charles River since MWRA began implementation of the long-term CSO control plan. Average bacteria counts during heavy rain, when the river is affected by contaminated stormwater and CSO, have decreased substantially. There have also been noticeable decreases during dry weather, when illicit connections have relatively large effects, because the CSOs typically only discharge in heavy rain (Figure 3).

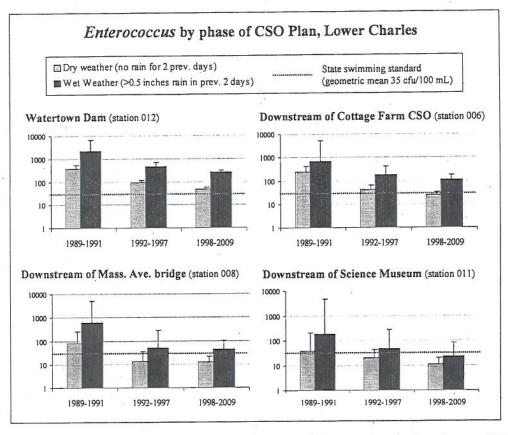


Figure 3. Geometric mean *Enterococcus* counts in wet and dry weather during phases of MWRA's CSO control plan at four locations in the lower Charles River. Dotted line indicates the swimming standard. Error bars are upper 95% confidence intervals. (Note log scale.)

III. DEP Determinations and Next Steps

Charles River CSO Plan and Related Water Quality Improvement

Water quality in the Lower Charles River Basin has improved tremendously over the last twenty years, in part due to significant reductions in CSO discharges at the Cottage Farm facility and several other outfalls. Greatly improved pumping capacity at the Deer Island Wastewater Treatment Plant, improved sewer system operation and maintenance, and the implementation of projects under the long-term CSO control plan have contributed to the CSO reductions. The completed CSO work includes Stony Brook sewer separation; hydraulic relief at outfall CAM005; upgrade of the Cottage Farm facility; the Brookline connection and Cottage Farm overflow interconnection and gate control; the closing of several outfalls by MWRA, BWSC, and the City of Cambridge; and floatables control. In addition, MWRA, with the cooperation of BWSC and the Town of Brookline, is nearing completion of the Bulfinch Triangle sewer separation project and is well along with construction of the Brookline sewer separation project. These additional projects that are intended to further reduce CSO discharges by optimizing the existing sewer system and reducing stormwater inflows. In addition, the City of Cambridge continues to implement its long-term plans for separation of its combined sewer systems in the Charles River watershed.

DEP noted in its comments on MWRA's Cottage Farm Facility Assessment Report (2004) that construction of CSO storage facilities at Cottage Farm was not a cost-effective measure for CSO control, and that MWRA should rather "commit resources toward cost-effective projects which will further eliminate stormwater from the combined sewer system, and which will be consistent with community efforts in managing broader wet weather impacts. This approach will be important to optimizing use of the Cottage Farm CSO Treatment Facility and improving water quality in the lower Charles River Basin." DEP has concluded that the revised plan for the Charles River and specifically the system optimization and sewer separation projects added to the plan in 2006 are consistent with this approach and maximize CSO benefits.

Other Priorities to Ensure Continued Progress

Further water quality improvements in the Charles River watershed will rely largely on endeavors to address illegal discharges to storm drains, storm water Best Management Practices and other storm water impacts as they contribute to wet weather issues affecting the Charles River and its tributaries. DEP recognizes that progress is continuing to be made in these areas. Through the Charles River Basin CSO variance, the public, regulatory agencies and permittees have gained the benefit of information provided by the efforts of USGS, CRWA, MWRA, BWSC, the City of Cambridge, and others to make sound decisions for continued, significant improvement in the water quality of the Charles River Basin.

DEP also acknowledges the importance of proper operation, maintenance, and rehabilitation of both the MWRA and community sewer and storm water systems to assure optimized conditions for conveying wastewater flows through the system for treatment and discharge at Deer Island and improving storm water quality. Sewer system repairs and cleaning

have resulted in improved conveyance capacities in a number of locations and have also contributed to mitigating CSO discharges by addressing localized system flow constraints.

IV. Proposed Variance Extension and Next Steps

As part of the agreement on the LTCP reached in March 2006 among EPA, DEP, DOJ and MWRA, MWRA requested that the Variance for the Lower Charles River Basin be reissued through 2020 when MWRA must complete the region-wide LTCP and subsequent monitoring to verify that the long-term CSO control goals are achieved. MWRA bases this request on the significance of the CSO control and related water quality improvement it has achieved to date, the expectation for additional CSO control and water quality improvement with the projects it added to the Charles River plan as part of the 2006 decision, and the desire to provide a level of financial certainty and stability for its ratepayers.

At that time, DEP and EPA determined that MWRA's LTCP satisfied the requirements for a variance from water quality standards for CSO discharges to the Lower Charles River Basin through 2020. As part of this determination, DEP and EPA agreed that DEP would issue and EPA would approve five consecutive extensions on no more than a three-year duration each through 2020, which would be consistent with and limited to the requirements in MWRA's LTCP.

Substantial and Widespread Social and Economic Impact

DEP has emphasized cost-effectiveness for CSO long-term control plans, to ensure that financial resources for pollution abatement actually provide improvements in water quality. The principles of cost-effectiveness and water quality benefits have been a major factor used by MWRA in the development of its present \$884.1 million CSO abatement plan. MWRA will spend more than \$171 million on CSO projects over the five-year period July 2010 through June 2015 (FY11-FY15), which is 15 percent of all planned capital spending and 26 percent of wastewater capital spending in the same period. MWRA sewer rates are among the highest in the nation and are projected to increase significantly over the next five years.

Implementation of the recommended plan will reduce typical year CSO discharge volume to the Charles River to 13.1 million gallons in a typical year (from 1.7 billion gallons in 1988), with half of the remaining annual discharge volume treated at Cottage Farm. The untreated discharges to the Charles River will be reduced to three or fewer in a typical year and treated CSOs discharged at Cottage Farm will be reduced to two activations in a typical year. In accordance with DEP's CSO Guidance, cost-effectiveness, protection of sensitive uses, and the financial capability of CSO permittees are all important factors in making determinations on the appropriate level of CSO control.

MWRA submitted data related to DEP's finding of "substantial and widespread economic and social impact," the basis for its issuance of a Variance in 1997 (See 314 CMR 4.03(4)(f)). DEP documented for the current Variance ending September 30, 2010, its review of a report by Robert N. Stavins, Assessment of the Economic Impact of Additional Combined Sewer Overflow Controls on Households and Communities in the Massachusetts Water Resources

Service Area, dated March 17, 2004. DEP also reviewed the Affordability Analysis Worksheets included in Appendix H of the Cottage Farm Report dated January 2004, which are based on EPA's Interim Economic Guidance for Water Quality Standards.

DEP's conclusions from its review of the documents submitted by MWRA and determination in support of the Variance Extension request have not changed. DEP, upon issuance of the 2007 Variance Extension, indicated that it would evaluate the information required by the Variance to determine whether there are additional cost-effective CSO controls. DEP has reviewed the new information regarding revisions to the Charles River CSO control plan, as well as other revisions and cost changes in MWRA's LTCP, and has determined that additional controls beyond those recommended in the MWRA CSO Plan would not be cost-effective or affordable.

Based on these important considerations, DEP has determined that proceeding at this time with controls beyond those included in the MWRA Long-Term CSO Control Plan would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4), and that an extension to the CSO Variance is appropriate at this time. Issuing of the CSO Variance Extension in the Lower Charles River Basin watershed is consistent with EPA Guidance: Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001), which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of LTCPs.

Determination to Extend Variance

DEP makes the following determinations:

- The revisions MWRA has made to its long-term CSO control plan for the Charles River, by adding projects to optimize sewer system performance and remove stormwater inflow through sewer separation, are responsive to the conditions and intent of the Variance and will maximize CSO control benefits.
- All of the CSO discharges in the Lower Charles River Basin cannot be feasibly eliminated. MWRA has completed numerous analyses since the late 1980s evaluating alternatives for eliminating CSOs from the collection system tributary to the Deer Island Wastewater Treatment Plant. Among these are the 1997 FEIR, the 2004 Cottage Farm Facility Assessment Report, and the additional alternatives analyses and recommendations MWRA submitted to EPA and DEP in late 2005 and early 2006 that lead to the 2006 agreement. MWRA's revised LTCP incorporates all cost-effective and feasible CSO abatement projects for this watershed. At this point in time, it does not appear technically feasible to eliminate all CSO outfalls to this watershed given the engineering and infrastructure constraints in the MWRA interceptor system, headworks, conveyance tunnels, the Deer Island wastewater treatment plant, and the ocean outfall.
- It remains unclear whether the Class B water quality standards for the Basin can ultimately be achieved or the extent (percent of time) the standards can be met.

Analyses completed by the MWRA and others indicate that substantial stormwater pollutant loadings remain in the Charles River watershed. Actions are underway in this watershed to remediate stormwater discharges, including aggressive measures to identify and remove illegal sewer connections. However, it remains unclear at this time whether stormwater discharges to the Basin can meet the Class B water quality standard through the implementation of these controls. Therefore, additional time is needed before DEP can make a definitive determination as to the efficacy of the CSO and stormwater controls now planned or underway in bringing these discharges into compliance with the Class B standards.

• Proceeding at this time with controls beyond those presently included in the revised LTCP would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4). The cost of MWRA's CSO control program is substantial, at present included in MWRA's capital budget at \$884 million. MWRA's detailed financial impact assessment considered the effect of expected sewer rate increases, and, appropriately, median household income as adjusted by the relatively high cost of housing in the Boston area. The MWRA adequately demonstrated that proceeding at this time with CSO controls necessary for full attainment of Class B water quality standards in the Lower Charles River Basin would result in substantial and widespread economic and social impact.

DEP concludes that extension to the CSO Variance for the Lower Charles River Basin is appropriate at this time. DEP has also determined that it will reissue the variance in the future for three-year periods through 2020, when the CSO control plan and benefits will be completed and verified. Issuing of the CSO Variance Extension in the Charles watershed is consistent with EPA Guidance: Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001), which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of LTCPs.

A determination on the highest feasible level of CSO control and associated water quality standard should be deferred until the LTCP is implemented and the associated benefits are verified in 2020, in compliance with Schedule Seven. During this same period, community programs to control illicit discharges, remove infiltration and inflow from sewer systems, and separate combined sewer systems are expected to continue and will result in additional water quality improvement for the Lower Charles River Basin.

Future Actions

- (1) The Variance for CSO discharges to the Lower Charles River Basin will be extended by a period not to exceed 3 years (October 1, 2013).
- (2) MWRA, the City of Cambridge, and the Boston Water and Sewer Commission shall implement all elements of the LTCP as defined in the Second CSO Stipulation and in accordance with Schedule Seven.

- (3) MWRA, the City of Cambridge, and the Boston Water and Sewer Commission shall continue to implement the Nine Minimum Controls and report on CSO activations and volumes.
- (4) MWRA shall continue to implement its receiving water monitoring in the Lower Charles River watershed and submit an annual summary report on or before July 15 of each year.